

CLAIMS:

1. A valve assembly comprising a male luer end portion, a female luer end portion and a channel for the transfer of fluids between the male and female luer end portions, valve means movable between a closed position and an open position,
5 biasing means for biasing the valve means toward the closed position, and actuating means extending into the male luer end portion and coupled to the valve means to actuate the valve means when a female luer end portion of a medical accessory is coupled with the male luer end portion.

10 2. A valve assembly as defined in claim 1 wherein the male luer end portion has an inner projection and outer threaded sheath which is spaced therefrom, the actuating means including an actuating member positioned between the outer threaded sheath and the inner projection.

15 3. A valve assembly as defined in claim 2, wherein the valve means includes a valve seat and a valve member moveable relative thereto.

4. A valve assembly as defined in claim 3, further including a first channel portion adjacent the female luer end portion, the inner projection including a
20 second channel portion, the valve member having a valve channel portion in fluid communication with the first and second channel portions.

5. A valve assembly as defined in claim 4 wherein the valve seat is formed in the second channel portion.

25

6. A valve assembly as defined in claim 3, claim 4, or claim 5 wherein the valve member is integrally formed with the female luer end portion.

7. A valve assembly as defined in any of claims 3-6, further comprising
30 a housing portion, wherein the valve member includes an anchor flange extending outwardly toward an inner surface of the housing portion.

8. A valve assembly as defined in claim 7, wherein the housing portion is coupled to the male luer end portion for movement therewith relative to the valve member.

5

9. A valve assembly as defined in claim 7 or claim 8 wherein the male luer end portion engages the anchor flange when the valve means is in the closed position and the male luer end portion is spaced from said anchor flange when the valve means is in the open position.

10

10. A valve assembly as defined in claim 7, claim 8, or claim 9 wherein the housing portion terminates at an end region adjacent the female luer end portion, the biasing means includes a compression spring located within the housing portion between the end region and the outer anchor flange.

15

11. A medical dispensing device comprising a body having a chamber therein to contain a fluid material, a valve assembly in fluid communication with the chamber, the valve assembly having a male coupling member for engaging a female coupling member on a medical accessory to form a fluid coupling between the medical dispensing device and the medical accessory, the valve assembly further comprising flow control means operable to control fluid flow through the male coupling member, the flow control means being operable to be displaced by the female coupling member to open the male coupling member when the female coupling member is operatively connected therewith, the flow control means being operable to be displaced by the female coupling member to close the male coupling member when the female coupling member is disconnected therefrom.

20

25

12. A device as defined in claim 11, wherein the male coupling member includes an inner male portion and an outer sheath portion spaced therefrom to form a passage therebetween for receiving the female coupling member, the flow control means including at least one valve actuating portion positioned in the passage to

30

abut the female coupling member and to displace the valve member during the travel of the female coupling member along the passage.

13. A device as defined in claim 11 or claim 12, wherein the valve assembly includes a valve member and a valve seat, the valve member positioned against the seat to close the male coupling member.

14. A device as defined in claim 12 or claim 13 wherein the valve actuating portion includes a pair of abutment elements which are spaced from one another along the passage to receive the female coupling member therebetween, wherein the pair of abutment elements are operable to travel with the female coupling member along the passage.

15. A device as defined in claim 12, claim 13, or claim 14, wherein the valve actuating portion includes a locking flange and the valve assembly includes a locking seat to receive the locking flange when the male coupling member is in the closed position.

16. A device as defined in claim 15 wherein the valve actuating portion has a distal end region, the locking flange being located adjacent the distal end region.

17. A device as defined in claim 15 or claim 16 wherein the locking seat is formed in the outer sheath portion.

18. A device as defined in claim 15, claim 16, or claim 17 wherein the valve actuating portion is arranged to flex in order to displace the locking flange from the locking seat.

19. A device as defined in any of claims 15-18 wherein the locking flange is adjacent one of the abutment elements.

20. A device as defined in any of claims 14-19, wherein the valve actuating portion is longitudinally oriented relative to the passage and the abutment elements are positioned along the actuating portion.

5 21. A device as defined in any of claims 13-20, wherein the valve member includes a back plate and a plurality of actuating portions equally spaced on the back plate, each of the actuating portions having first and second abutment elements.

10 22. A medical dispensing device comprising a body having a chamber therein to contain a fluid material and a valve assembly in fluid communication with the chamber, the valve assembly having a male coupling member for engaging a female coupling member on a medical accessory to form a fluid coupling between the medical dispensing device and the medical accessory, the male coupling member
15 including a projection and an outer valve member movable relative to the projection, the projection and the outer valve member forming a fluid channel therebetween, a sheath portion encircling the projection and spaced therefrom to form a passage to receive the female coupling member, the valve member being engageable with the female coupling member and movable relative to the projection to open the fluid
20 channel when the female coupling member is connected with the male coupling member.

23. A device as defined in claim 22 wherein the valve member forms an outer surface of the male coupling member.

25

24. A device as defined in claim 22 or claim 23 further comprising biasing means to bias the valve member toward an engaged position with the projection to close the fluid channel.

30 25. A device as defined in claim 24, wherein the passage ends at an inner wall, and the biasing means includes a spring located between the inner wall and the valve member.

26. A device as defined in any of claims 22-25, wherein the projection is fixed to the body.

5 27. A device as defined in any of claims 22-26, wherein the projection includes an inner passage, the inner passage having one end which is open to the chamber and another end which is open to the fluid channel.

10 28. A device as defined in any of claims 22-27 wherein the projection includes an enlarged end portion, the valve member including an outer portion arranged to engage the enlarged end portion to close the fluid channel.

 29. A device as defined in claim 28 wherein the enlarged end portion and the outer end portion on the valve member have mating bevelled surfaces.

15 30. A device as defined in any of claims 22-29 additionally including a female coupling member which has a leading segment, the valve member being dimensioned to fit within the leading segment.